IN THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF OKLAHOMA

STATE OF OKLAHOMA,)
Plaintiff,)
v.	Case No. 05-cv-329-GKF(PJC)
TYSON FOODS, INC., et al.,)
Defendants) s.)

STATE OF OKLAHOMA'S MOTION IN LIMINE TO PRECLUDE EXPERT TESTIMONY OF DEFENDANTS' WITNESS GLENN W. JOHNSON, Ph.D. AND INTEGRATED BRIEF IN SUPPORT THEREOF

Plaintiff, the State of Oklahoma ("the State"), pursuant to Fed. R. Evid. 104 and 702 and, Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579 (1993), respectfully moves this Court for an order in limine precluding the expert testimony of Defendants' witness Glenn W. Johnson, Ph.D. ("Dr. Johnson") concerning his opinion that Dr. Olsen's principle component analysis ("PCA") does not identify sources of phosphorus contamination in the IRW, rather, it simply identifies natural geochemical processes.

I. **Introductory Statement**

Dr. Johnson opines in areas outside his expertise and his understanding of chemical processes and offers his PCA critique without an evaluation of the sampling and analysis data collected by the State and other IRW investigators. Dr. Johnson asserts that Dr. Olsen's PCA analysis is flawed because failed to recognize the influence of total concentration and geochemical partitioning in his IRW PCA analysis. See Exhibit A, Johnson Expert Report at pp. 5 and 57-68. Dr. Johnson's opinion on this matter is undermined by his lack of experience and understanding of agricultural chemical transport, nonpoint source pollution from agriculture, and the chemical processes that control phosphorus fate and transport in the IRW. Also, Dr.

Johnson's opinions that Dr. Olsen's PCA describes a chemical process rather than sources of contamination are contradicted by the actual observed IRW data from many scientific sources. Pursuant to the relevant law, Dr. Johnson's opinion must be precluded due to his lack of experience and knowledge in this specific arena to support his opinion and the lack of a factual predicate for his testimony and expert report.

II. Factual Background

Dr. Johnson was retained by the integrator defendants to: "provide a critical review and rebuttal to the opinions of Dr. Roger L. Olsen, as well as a reanalysis of the data upon which his opinions are based." See Exhibit A, Dr. Johnson Expert Report, at p. 1. However, Dr. Johnson has no experience with agricultural pollution, nor nutrients or bacteria. This is his first experience with such issues. See Ex. B, Deposition of Glenn W. Johnson, at 87:5-20. Dr. Johnson's experience is essentially limited to synthetic hazardous wastes such as PCBs which have drastically different fate and transport characteristics. See Ex. C, Declaration of Dr. Jim Loftis, at ¶ 18.

In his report, Dr. Johnson opines that "geochemical processes," rather than contaminant sources, are the controlling factor regarding the phosphorus and bacteria pollution in the Illinois River Watershed (IRW). *See* Ex. A, Johnson Report at p. 66. Thus, Dr. Johnson contends that processes rather than sources are the controlling factor in Dr. Olsen's PCA analysis. If this is true, logic would dictate that he examine potential sources to understand how the PCA analysis performed by Dr. Olsen was, in fact, recognizing something else as a controlling factor. *See* Ex. D, Declaration of Dr. Roger Olsen. However, Dr. Johnson did no analysis of potential sources and his failure to do so demonstrates that his conclusion lacks a factual foundation. Because he disregarded the mountain of existing IRW specific data, he has reached a conclusion with no

¹ Citations to Dr. Johnson's deposition and report contained therein are attached.

facts supporting his methodology. *See* Ex. B, Jonson Depo. at pp. 80:7-12, 136:16-21, 142:4-9, 143:6-12, 182:14-22, 205:1-11, 435:21-436:1; Ex. D, Olsen Decl. at ¶ 7. Dr. Johnson's admitted lack of knowledge regarding potential sources of contamination in the IRW and his failure to investigate them causes him to mistakenly conclude that the IRW water quality problems are a result of natural processes. He reaches this conclusion despite numerous published papers to the contrary. *See* Ex. D, Olsen Decl. at ¶ 8. It is apparent that Dr. Johnson is unaware of and has not availed himself of the available data regarding phosphorus contamination in the IRW. *See* Ex. B, Johnson Decl. at pp. 469:5-470:23.

Another fundamental flaw in Dr. Johnson's "process based" PCA opinion is his lack of understanding of the chemical attributes of phosphorus and the processes that affect it in the environment. For example, Dr. Johnson is unaware whether elemental phosphorus naturally occurs in the environment when, as a fact, elemental phosphorus does not naturally occur. See Ex. B. Johnson Deposition at 445:25-449:24, 450:23-25, 451:3-5, 451:14-21; Ex. D, Olsen Decl. at ¶ 12. Dr. Johnson also does not know the type of the phosphorus which pollutes the IRW. Dr. Johnson states and reiterates that most of the Total Phosphorus in the IRW is particulate phosphorus, the fact that supports his conclusions. See Ex. B, at pp. 144:19-25, 148:10-21, 149:16-150:4, 151:15-19, 175:11-176:5 444:25-445:5, 454:23-455:14. But, he is simply wrong about this fundamental fact. To come to this conclusion it was necessary for Dr. Johnson to ignore the relevant literature and data collected in the IRW that show most of the phosphorus in the surface waters of the IRW is dissolved. See Ex. D, Olsen Decl. at ¶¶ 13-14. Moreover, Dr. Johnson does not know whether the phosphorus levels in the IRW are natural or the result of man-made conditions because he does not know what level of phosphorus is the action level under Oklahoma Law. See Ex. B, Johnson Depo. at 469:23-470:1; Ex. C, Loftis Decl. at ¶ 20. Further, as a predicate to the conclusions he draws, it would be necessary for Dr. Johnson to

understand the relative amounts of dissolved and particulate phosphorus in the IRW. This he also does not understand. *See* Ex. D, Olsen Decl. 2 at ¶ 15.

III. Legal Standard

Federal Rule of Evidence 702 provides:

If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness *qualified as an expert by knowledge, skill, experience, training, or education*, may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case. (emphasis added).

Thus, "Fed. R. Evid. 702 imposes on the trial judge an important 'gate-keeping' function with regard to the admissibility of expert opinions." *Ralston v. Smith & Nephew Richards, Inc.*, 275 F.3d 965, 969 (10th Cir. 2001). As an initial matter, the court must determine the expert is qualified by "knowledge, skill, experience, training, or education" to render an opinion. *Id.* As stated in the *In re Williams Sec. Litig.*, 496 F. Supp. 2d 1195, 1232 & 1245 (N.D. Okla. 2007):

[I]t should be borne in mind that "[t]he issue with regard to expert testimony is not the qualifications of a witness in the abstract, but whether those qualifications provide a foundation for a witness to answer a specific question." Berry v. City of Detroit, 25 F.3d 1342, 1351 (6th Cir. 1994), cert. denied, 513 U.S. 1111, 115 S. Ct. 902, 130 L. Ed. 2d 786 (1995). See also, Wheeling Pittsburgh Steel Corp. v. Beelman River Terminals, Inc., 254 F.3d 706, 715 (8th Cir. 2001) ("To begin with, we agree with the district court that Dr. Curtis . . . easily qualifies as an expert under Federal Rule of Evidence 702. The real question is, what is he an expert about?") and Westfed Holdings, Inc. v. United States, 55 Fed. Cl. 544, 571 (2003), rev'd in part on other grounds, 407 F.3d 1352 (Fed. Cir. 2005). Thus, on the issue of expert qualifications, Ralston and like cases establish that the qualifications of the proposed expert are to be assessed only after the specific matters he proposes to address have been identified. The controlling Tenth Circuit cases, exemplified by Ralston, establish that the expert's qualifications must be both (i) adequate in a general, qualitative sense (i.e., "knowledge, skill, experience, training or education" as required by Rule 702) and (ii) specific to the address an expert. matters he proposes to as

Next, the court must ensure that the scientific testimony being offered is "not only relevant, but reliable." *See Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 589 (1993).² "To be reliable under *Daubert*, an expert's scientific testimony must be based on scientific knowledge" *Dodge v. Cotter Corp.*, 328 F.3d 1212, 1222 (10th Cir. 2003). The Supreme Court has explained that the term "scientific" "implies grounding in the methods and procedures of science." *Daubert*, 509 U.S. at 590. Likewise, it has explained that the term "knowledge" "connotes more than subjective belief or unsupported speculation." *Id.* Thus, "in order to qualify as 'scientific knowledge,' an inference or assertion must be derived by the scientific method. Proposed testimony must be supported by appropriate validation -- *i.e.*, 'good grounds,' based on what is known." *Id.*

The Supreme Court has set forth four non-exclusive factors that a court may consider in making its reliability determination: (1) whether the theory or technique can be (and has been) tested, *id.* at 593; (2) whether the theory or technique has been subjected to peer review and publication, *id.*; (3) the known or potential rate of error and the existence and maintenance of standards controlling the technique's operation, *id.* at 594; and (4) whether the theory or technique has general acceptance in the scientific community, *id.* The inquiry is "a flexible one." *Id.*; *see also id.* at 593 ("[m]any factors will bear on the inquiry, and we do not presume to set out a definitive checklist or test"); *Dodge*, 328 F.3d at 1222 ("the list is not exclusive"). "The focus [of the inquiry]. . . must be solely on principles and methodologies, not on the conclusions that they generate." *Daubert*, 509 U.S. at 595.

To be relevant, the testimony must "assist the trier of fact to understand the evidence or to determine a fact in issue." Fed. R. Evid. 702. This consideration has been described as one of

The Supreme Court held in *Kumho Tire Co. v. Carmichael*, 526 U.S. 137 (1999), that the gatekeeping function set out in *Daubert* applies not only to expert testimony based on scientific knowledge, but also expert testimony based upon technical or other specialized knowledge -- *i.e.*, it applies to all expert testimony.

"fit." *See Daubert*, 509 U.S. at 591. "'Fit' is not always obvious, and scientific validity for one purpose is not necessarily scientific validity for other, unrelated purposes." *Id*.

In sum, "[t]he objective of [the gatekeeping] requirement is to ensure the reliability and relevancy of expert testimony. It is to make certain that an expert, whether basing testimony upon professional studies or personal experience, employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field." *Kumho Tire*, 526 U.S. at 152.

Finally, the party proffering the expert scientific testimony bears the burden of establishing admissibility under the Federal Rules of Evidence and *Daubert*. *See Ralston*, 275 F.3d at 970 fn. 4.

IV. Argument

A. Dr. Johnson's testimony is unreliable because his testimony is not based on a factual foundation.

The fact that Dr. Johnson does not know that most of phosphorus in the IRW is in its dissolved phase renders his opinion wholly unreliable. His opinion is unreliable because it is *based on the false premiss* that most of the phosphorus in the IRW is particulate in nature. Since the relevant literature and actual observed data from the IRW contradict one of Dr. Johnson's basic and fundamental assumptions, his entire methodology and all conclusions drawn from it are unreliable. *See* Ex. D, Olsen Decl.at ¶ 13-15. Dr. Johnson's opinion relating to the "process based" PCA relies on his false premise that most of the phosphorus in the IRW is particulate bound. Thus, it must be precluded because the opinion is not grounded in the methods and procedures of science and are not supported by any factual foundation -- *i.e.*, 'good grounds,' based on what is known." *Daubert*, 509 U.S. at 590. By ignoring this relevant data, Dr. Johnson renders his opinion unreliable because it is based on false assertions that do not comport with

real world data. Thus, his opinion should be excluded under Federal Rule of Evidence 702 and Daubert.

B. Dr. Johnson's testimony and report should be precluded in this case because he lacks the requisite specific knowledge and experience to opine on the processes governing phosphorus movement in the IRW.

As a threshold question, before the Court can examine an expert's opinion as to relevance and reliability, it must determine whether that expert is qualified, through education and experience, to offer the opinions they intend to. *Ralston*, 275 F.3d at 969. However, general qualifications are not sufficient. Instead, Defendants must demonstrate that Dr. Johnson possesses qualifications that are "specific to the matters he proposes to address as an expert." *In re Williams Sec. Litig.*, 496 F. Supp. 2d at 1232 & 1245.

As demonstrated above, Dr. Johnson lacks qualifications that are specific to the environmental processes that control his "processed based PCA." Dr. Johnson is unaware: (1) whether elemental phosphorus naturally occurs in the environment, (2) of the type of the phosphorus which pollutes the IRW, (3) that most of the phosphorus in the surface waters of the IRW is dissolved, (4) of what level of phosphorus is the action level under Oklahoma Law (5) of the correct form and formula for phosphorus in water, (6) the basic adsorption properties of negatively changed anions and negatively charged particles, (7) the partition coefficient that controls phosphorus adsorption (8) of the effects of pH on adsorption, (9) of the surface charge of the suspended particles at the pH values of the waters of the IRW and (10) of the levels that result in muddy and salty waters. . See Ex. B, Johnson Deposition at 445:25-449:24, 450:23-25, 451:3-5, 451:14-21, 144:19-25, 148:10-21, 149:16-150:4, 151:15-19, 175:11-176:5, 444:25-445:5, 454:23-455:14, and 469:23-470:1, Ex. D, Olsen Decl. at ¶ 11-14; Ex. C, Loftis Decl. at ¶ 20. Further, as a predicate to the conclusions he draws, it would be necessary for Dr. Johnson to understand the relative amounts of dissolved and particulate phosphorus in the IRW. This he

also does not understand. See Ex. D, Olsen Decl.at ¶ 15. Due to the fact that Dr. Johnson is opining outside of the area of his expertise, his testimony and report should be excluded pursuant to Ralston.

V. Conclusion

WHEREFORE, in light of the foregoing, this Court should enter an order in limine precluding the expert testimony of Defendants' witness Dr. Glenn W. Johnson due to his lack of experience and education pertaining to the subject matter on which he intends to opine.

Respectfully Submitted,

W.A. Drew Edmondson OBA # 2628 ATTORNEY GENERAL Kelly H. Burch OBA #17067 J. Trevor Hammons OBA #20234 Daniel P. Lennington OBA #21577 ASSISTANT ATTORNEYS GENERAL State of Oklahoma 313 N.E. 21st St. Oklahoma City, OK 73105 (405) 521-3921

/s/ Richard T. Garren

M. David Riggs OBA #7583 Joseph P. Lennart OBA #5371 Richard T. Garren OBA #3253 Sharon K. Weaver OBA #19010 Robert A. Nance OBA #6581 D. Sharon Gentry OBA #15641 David P. Page OBA #6852 RIGGS, ABNEY, NEAL, TURPEN, **ORBISON & LEWIS** 502 West Sixth Street Tulsa, OK 74119 (918) 587-3161

Louis W. Bullock OBA #1305

Frederick C. Baker (admitted *pro hac vice*)
Lee M. Heath (admitted *pro hac vice*)
Elizabeth C. Ward (admitted *pro hac vice*)
Elizabeth Claire Xidis (admitted *pro hac vice*)
MOTLEY RICE, LLC
28 Bridgeside Boulevard
Mount Pleasant, SC 29465 (843) 216-9280

William H. Narwold (admitted *pro hac vice*)
Ingrid L. Moll (admitted *pro hac vice*)
MOTLEY RICE, LLC
20 Church Street, 17th Floor
Hartford, CT 06103
(860) 882-1676

Jonathan D. Orent (admitted pro hac vice) Michael G. Rousseau (admitted pro hac vice) Fidelma L. Fitzpatrick (admitted pro hac vice) MOTLEY RICE, LLC 321 South Main Street Providence, RI 02940 (401) 457-7700

Attorneys for the State of Oklahoma

I hereby certify that on this 18th day of May, 2009, I electronically transmitted the above and foregoing pleading to the Clerk of the Court using the ECF System for filing and a transmittal of a Notice of Electronic Filing to the following ECF registrants:

W. A. Drew Edmondson, Attorney General	fc_docket@oag.state.ok.us	
Kelly H. Burch, Assistant Attorney General	kelly_burch@oag.state.ok.us	
J. Trevor Hammons, Assistant Attorney General	trevor_hammons@oag.state.ok.us	
Daniel P. Lennington, Assistant Attorney General	daniel.lennington@oag.ok.gov	
M. David Riggs	driggs@riggsabney.com	
Joseph P. Lennart	jlennart@riggsabney.com	
Richard T. Garren	rgarren@riggsabney.com	
Sharon K. Weaver	sweaver@riggsabney.com	
Robert A. Nance	rnance@riggsabney.com	
D. Sharon Gentry	sgentry@riggsabney.com	
David P. Page	dpage@riggsabney.com	
RIGGS, ABNEY, NEAL, TURPEN, ORBISON &	LEWIS	
Louis Werner Bullock	lbullock@bullock-blakemore.com	
Robert M. Blakemore	bblakemore@bullock-blakemore.com	
BULLOCK, BULLOCK & BLAKEMORE		
Frederick C. Baker	fbaker@motleyrice.com	
Lee M. Heath	lheath@motleyrice.com	
Elizabeth C. Ward	lward@motleyrice.com	
Elizabeth Claire Xidis	cxidis@motleyrice.com	
William H. Narwold	bnarwold@motleyrice.com	
Ingrid L. Moll	imoll@motleyrice.com	
Jonathan D. Orent	jorent@motleyrice.com	
Michael G. Rousseau	mrousseau@motleyrice.com	
Fidelma L. Fitzpatrick	ffitzpatrick@motleyrice.com	
MOTLEY RICE, LLC		
Counsel for State of Oklahoma		
Robert P. Redemann	rredemann@pmrlaw.net	
PERRINE, MCGIVERN, REDEMANN, REID, BA	RRY & TAYLOR, P.L.L.C.	
David C. Senger	david@cgmlawok.com	
Robert E Sanders	rsanders@youngwilliams.com	
Edwin Stephen Williams	steve.williams@youngwilliams.com	
YOUNG WILLIAMS P.A.		
Counsel for Cal-Maine Farms, Inc and Cal-Maine Foods, Inc.		
· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	

Counsel for Peterson Farms, Inc.	
John Elrod	jelrod@cwlaw.com
Vicki Bronson	vbronson@cwlaw.com
P. Joshua Wisley	jwisley@cwlaw.com
Bruce W. Freeman	bfreeman@cwlaw.com
D. Richard Funk	rfunk@cwlaw.com
CONNER & WINTERS, LLP	
Counsel for Simmons Foods, Inc.	
Stephen L. Jantzen	sjantzen@ryanwhaley.com
Paula M. Buchwald	pbuchwald@ryanwhaley.com
Patrick M. Ryan	pryan@ryanwhaley.com
RYAN, WHALEY, COLDIRON & SHANDY,	P.C.
Mark D. Hopson	mhopson@sidley.com
Jay Thomas Jorgensen	jjorgensen@sidley.com
Timothy K. Webster	twebster@sidley.com
Thomas C. Green	tcgreen@sidley.com
Gordon D. Todd	gtodd@sidley.com
SIDLEY, AUSTIN, BROWN & WOOD LLP	1.0
Robert W. George	robert.george@tyson.com
L. Bryan Burns	bryan.burns@tyson.com
Timothy T. Jones	tim.jones@tyson.com
TYSON FOODS, INC	tini.jones@jyson.com
11501110000, 1110	
Michael R. Bond	michael.bond@kutakrock.com
Erin W. Thompson	erin.thompson@kutakrock.com
Dustin R. Darst	dustin.darst@kutakrock.com
KUTAK ROCK, LLP	
	y, Inc., Tyson Chicken, Inc., & Cobb-Vantress, Inc.
R. Thomas Lay	rtl@kiralaw.com
KERR, IRVINE, RHODES & ABLES	
Frank M. Evans, III	fevans@lathropgage.com
Jennifer Stockton Griffin	jgriffin@lathropgage.com
David Gregory Brown	
LATHROP & GAGE LC	
Counsel for Willow Brook Foods, Inc.	
Robin S Conrad	rconrad@uschamber.com

NATIONAL CHAMBER LITIGATION CENTER	
Gary S Chilton	gchilton@hcdattorneys.com
HOLLADAY, CHILTON AND DEGIUSTI, PLLC	genmon@neduttorneys.com
Counsel for US Chamber of Commerce and Ame	erican Tort Reform Association
D. Kenyon Williams, Jr.	kwilliams@hallestill.com
Michael D. Graves	mgraves@hallestill.com
HALL, ESTILL, HARDWICK, GABLE, GOLDEN	
Counsel for Poultry Growers/Interested Parties/	Poultry Partners, Inc.
Richard Ford	richard.ford@crowedunlevy.com
LeAnne Burnett	leanne.burnett@crowedunlevy.com
CROWE & DUNLEVY	
Counsel for Oklahoma Farm Bureau, Inc.	
Wanda Alin Iana Assistant Attamay Canana	Vandra Lanas@arkangagag gay
Kendra Akin Jones, Assistant Attorney General Charles L. Moulton, Sr Assistant Attorney General	Kendra.Jones@arkansasag.gov Charles.Moulton@arkansasag.gov
Counsel for State of Arkansas and Arkansas Nat	
Counsel for State of Al Kansas and Al Kansas Nat	lonar Resources Commission
Mark Richard Mullins	richard.mullins@mcafeetaft.com
MCAFEE & TAFT	
Counsel for Texas Farm Bureau; Texas Cattle Fo	eeders Association; Texas Pork Producers
Association and Texas Association of Dairymen	I
Mia Vahlberg	mvahlberg@gablelaw.com
GABLE GOTWALS	Invalinoerge/gabiolaw.com
GRIDEL GOT WILLS	
James T. Banks	jtbanks@hhlaw.com
Adam J. Siegel	ajsiegel@hhlaw.com
HOGAN & HARTSON, LLP	
Counsel for National Chicken Council; U.S. Poul	try and Egg Association & National Turkey
<u>Federation</u>	
John D. Russell	jrussell@fellerssnider.com
FELLERS, SNIDER, BLANKENSHIP, BAILEY	J. abbon (w. rone) bonnach von
& TIPPENS, PC	
,	
William A. Waddell, Jr.	waddell@fec.net
David E. Choate	dchoate@fec.net

Also on this 18th day of May, 2009 I mailed a copy of the above and foregoing pleading

David Gregory Brown

to:

Lathrop & Gage LC 314 E HIGH ST JEFFERSON CITY, MO 65101

Thomas C Green

Sidley Austin Brown & Wood LLP 1501 K ST NW WASHINGTON, DC 20005

Dustin McDaniel

Justin Allen

Office of the Attorney General (Little Rock) 323 Center St, Ste 200 Little Rock, AR 72201-2610

Steven B. Randall

58185 County Road 658 Kansas, Ok 74347 Cary Silverman

Victor E Schwartz Shook Hardy & Bacon LLP (Washington DC) 600 14TH ST NW STE 800

WASHINGTON, DC 20005-2004

George R. Stubblefield

HC 66, Box 19-12 Proctor, Ok 74457

Secretary of the Environment State of Oklahoma 3800 NORTH CLASSEN OKLAHOMA CITY, OK 73118

/s/ Richard T. Garren